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Page 1 of 20

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Date: January 20, 2005

To:
Examiner: A. Armstrong
USPTO

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Art Unit:
2654

From:
Alan Pedersen-Giles

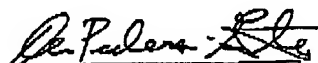
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M/S:

Subject: Network-Accessible Speaker-Dependent ...
Application No.: 10/038,409; Inventor: Michael Yudkowsky
Filed: 1/3/2002 Docket No. 42.P13063

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Petition for Extension of Time (1 page)
Appeal Brief (16 pages)

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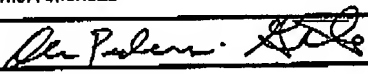
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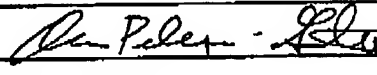
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| | | | |
|---|----------------------|------------------------|-----------|
| TRANSMITTAL FORM (to be used for all correspondence after initial filing) | Application Number | 10/036,409 | |
| | Filing Date | January 3, 2002 | |
| | First Named Inventor | Michael Yudkowsky | |
| | Art Unit | 2654 | |
| | Examiner Name | A. Armstrong | |
| Total Number of Pages in This Submission | 20 | Attorney Docket Number | 42.P13063 |

| ENCLOSURES (Check all that apply) | | |
|--|---|---|
| <input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD <div style="border: 1px solid black; padding: 2px;">Remarks</div> | <input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below): Fax cover sheet |
| SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT | | |
| Firm Name | Intel Americas | |
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| Printed name | Alan Pedersen-Giles | |
| Date | January 20, 2005 | Reg. No. 39,996 |

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| Typed or printed name | Alan Pedersen-Giles | Date January 20, 2005 |

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/17 (12-04v2)

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Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4318).**FEE TRANSMITTAL**
For FY 2005☐ Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$)
500**Complete if Known**

| | |
|----------------------|-------------------|
| Application Number | 10/038,409 |
| Filing Date | January 3, 2002 |
| First Named Inventor | Michael Yudkowsky |
| Examiner Name | A. Armstrong |
| Art Unit | 2654 |
| Attorney Docket No. | 42.P13063 |

METHOD OF PAYMENT (check all that apply)
☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____
☒ Deposit Account Deposit Account Number: 50-0221 Deposit Account Name: Intel Corp.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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☐ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☐ Credit any overpayments

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FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

| Application Type | FILING FEES | | SEARCH FEES | | EXAMINATION FEES | | Fees Paid (\$) |
|------------------|-------------|-----------------------|-------------|-----------------------|------------------|-----------------------|----------------|
| | Fee (\$) | Small Entity Fee (\$) | Fee (\$) | Small Entity Fee (\$) | Fee (\$) | Small Entity Fee (\$) | |
| Utility | 300 | 150 | 500 | 250 | 200 | 100 | |
| Design | 200 | 100 | 100 | 50 | 130 | 65 | |
| Plant | 200 | 100 | 300 | 150 | 160 | 80 | |
| Reissue | 300 | 150 | 500 | 250 | 600 | 300 | |
| Provisional | 200 | 100 | 0 | 0 | 0 | 0 | |

2. EXCESS CLAIM FEES**Fee Description**

Each claim over 20 (including Reissues)

Each independent claim over 3 (including Reissues)

Multiple dependent claims

| Total Claims | Extra Claims | Fee (\$) | Fee Paid (\$) |
|--------------|--------------|----------|---------------|
|--------------|--------------|----------|---------------|

- 20 or HP = _____ x _____ = _____

HP = highest number of total claims paid for, if greater than 20.

| Indep. Claims | Extra Claims | Fee (\$) | Fee Paid (\$) |
|---------------|--------------|----------|---------------|
|---------------|--------------|----------|---------------|

- 3 or HP = _____ x _____ = _____

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

| Total Sheets | Extra Sheets | Number of each additional 50 or fraction thereof | Fee (\$) | Fee Paid (\$) |
|--------------|--------------|--|----------|---------------|
|--------------|--------------|--|----------|---------------|

- 100 = _____ / 50 = _____ (round up to a whole number) x _____ = _____

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Appeal Brief fee

\$500

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| | | | | | |
|-------------------|----------------------------|-----------------------------------|------------------|-----------|--------------|
| Signature | <u>Alan Pedersen-Giles</u> | Registration No. (Attorney/Agent) | 39,998 | Telephone | 703-633-1061 |
| Name (Print/Type) | Alan Pedersen-Giles | Date | January 20, 2005 | | |

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Attorney Docket No: 42390.P13063
Application No. 10/038,409

PATENT
Attorney Docket No. 42.P13063

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

RECEIVED
CENTRAL FAX CENTER

JAN 20 2005

In re Patent Application of

Michael Yudkowsky

Application No.: 10/038,409

Filed: January 3, 2002

For: NETWORK-ACCESSIBLE SPEAKER-
DEPENDENT VOICE MODELS OF MULTIPLE
PERSONS

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)
) Group Art Unit: 2654

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) Examiner: A. Armstrong
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APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellant submits herewith an Appeal Brief as required by 37 C.F.R. § 41.37. This Appeal Brief is in response to the Final Office Action dated August 26, 2004 and the Advisory Action dated November 4, 2004.

I. REAL PARTY IN INTEREST

The real party in interest is Intel Corporation, a corporation of Delaware.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant which relate to, directly affect or are directly affected by the Board's decision in this appeal.

Attorney Docket No: 42390.P13063
Application No. 10/038,409

III. STATUS OF THE CLAIMS:

Claims 1-30 are pending in the application. These claims are reproduced in the attached Appendix.

Claims 1-12 and 14-30 stand finally rejected under 35 U.S.C. § 102(b) over Goronzy et al. (EP 1022725 A1). Claim 13 stands finally rejected under 35 U.S.C. § 103(a) over Goronzy et al. in view of Ellis et al. ("Tandem Acoustic Modeling in Large Vocabulary Recognition," IEEE Conference on Acoustics, Speech, and Signal Processing, 2001).

The rejections of claims 1-30 are appealed.

IV. STATUS OF AMENDMENTS:

An Amendment After Final under 37 C.F.R. § 1.116 was filed on September 30, 2004, with a single proposed amendment to correct a typographical error in claim 26. Because this proposed amendment does not affect this appeal and improves the form of the claims, the Amendment should be or should have been entered.

V. SUMMARY OF THE INVENTION:

Regarding independent claims 1, 18 and 28, telephony system 300 may determine an identity of a speaker through a network (pg. 11, lines 13-15; Fig. 2, element 205; and page 7, lines 9-12). Output data including identification information may be provided over the network to one or more speech-recognition systems (page 7, lines 12-21). See also page 7, lines 9 and 10, and page 6, lines 7-16, for further discussion of the network. SIP server 340 and/or voice model database server 350 may attempt to locate, based on the identity of the speaker, a voice model for the speaker (Fig. 2, element 210; and page 7, line 22 through page 8, line 7). Voice model database server 350 may retrieve the voice model 351 for the speaker from a storage area if the voice model for the speaker is located (page 11, lines 14-18).

Regarding independent claim 15, in addition to the above, SIP server 340 may connect telephone 320 over the network to voice model database server 350 (Fig. 2, element 220; page 11, lines 19 and 20). Voice model database server 350 may prompt the caller 310 to provide an utterance 330 (Fig. 2, element 225; page 11, lines 20 and 21). Caller 310 may speak the utterance 330 (Fig. 2, element 230), and voice model database server 350 may receive the

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utterance (Fig. 2, element 235; page 11, lines 21 and 22). Voice model database server 350 may use speaker-dependent voice model 351 to extract phonemes from the utterance 330 (Fig. 2, element 240; page 11, lines 22 and 23). Voice model database server 350 may transmit the phonemes 352 over the network to a speech-recognition system 365 (Fig. 2, element 245), and speech-recognition system 365 may use phonemes 352 to determine a content of the utterance 330 (Fig. 2, element 250; page 11, lines 22 and 23).

VI. GROUND OF REJECTION:

- A. Claims 1-12 and 14-30 stand rejected under 35 U.S.C. § 102(b) over Goronzy et al. (EP 1022725 A1).
- B. Claim 13 stands rejected under 35 U.S.C. § 103(a) over Goronzy et al. in view of Ellis et al. ("Tandem Acoustic Modeling in Large Vocabulary Recognition," IEEE Conference on Acoustics, Speech, and Signal Processing, 2001).

VII. ARGUMENT:

- A. Claims 1-12 and 14-30 are patentable under 35 U.S.C. § 102(b) over Goronzy et al.

- 1. Claims 1-12, 14, and 18-30:

Appellant respectfully traverses the § 102(b) rejection of independent claims 1, 18, and 28 over Goronzy et al.. Claims 1, 18, and 28 require a method, article of manufacture, and apparatus including, *inter alia*, "determin[ing] an identity of a speaker through a network over which output data including identification information is provided to one or more speech-recognition systems." Goronzy et al. fails to disclose at least the above quoted element of independent claims 1, 18, and 28.

With regard to these claims, page 6 of the Final Office Action alleges that the above-quoted claim language is met because "the networked system (col. 2, lines 2-3) checks the identity of the speaker every time the speaker changes, which requires use of some form of identification information to output to the verification module (4)." Page 3 of the Advisory Action adds that "the teachings of Goronzy of a networked system at column 3, lines 2-3, provide adequate support for applicant's claimed 'network' limitation."

- a. Goronzy et al. does not teach "a network over which output data including identification information is provided to one or more speech-recognition systems."

Goronzy et al. contains, in its entirety, exactly two variations on the word "network." The first, "state transition network," appears in the middle of paragraph 0002 and is not relevant to this appeal. The second mention of "a networked system" occurs at col. 3, lines 2 and 3, (in paragraph 0017) in a summary portion of Goronzy et al.. Notably, this term "networked system" occurs well before the description of Figs. 1 and 2 of Goronzy et al., and at most discloses that the system in Figs. 1 and 2 may be coupled to a network (i.e., "networked"). It is upon this single term in the summary of Goronzy et al. that the Examiner rests the whole § 102(b) rejection of independent claims 1, 18, and 28. This is wholly improper, as will be explained below.

M.P.E.P. § 2131 and Federal Circuit case law require that for anticipation, "The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)." Thus, to anticipate under § 102, a reference must contain all claim elements arranged as required by the claim. Because the term "a networked system" in paragraph 0017 does not, by itself, teach any specific arrangement of elements, any anticipatory teachings in Goronzy et al. must be found in Fig. 1, if at all.

Fig. 1 of Goronzy et al. shows a device, or portion of a system, whose circuit components are connected by typical, point-to-point electrical connections. For example, col. 3, lines 39-42, of Goronzy et al. discloses that microphone 1 inputs an analog signal to A/D converter 2, which inputs a corresponding digital signal to feature extraction module 3. Because an analog signal from microphone 1 to A/D converter 2 is typically transferred via an electrically conductive wire or trace, all arrows in Fig. 1 similar to that connecting components 1 and 2 are also, by implication, mere electrical connections. This conclusion is further supported by col. 4, lines 1-6, which discloses that modules 5 and 6 are selectively connected to storages 7-10 via "a switch 11" that is controlled by "a control signal" from module 4. Such a "switch," without more, discloses only a typical circuit component connected via electrical connections.

A cursory look at Fig. 1 will also reveal that this system appears to be a self-contained. No "network" type connections (e.g., communication interfaces) appear to be present in Fig. 1.

Paragraph 0019 of Goronzy et al. confirms these observations by teaching that “Figure 1 shows *only the part* of the automatic speech recognition system . . . *that is used for* speaker adaptation and *automatic identification of the speaker.*” (col. 3, lines 35-38 (emphasis added)). The implication of this statement is that the system Fig. 1 only shows and teaches a self-contained speaker identification system, and does not disclose a network or other circuitry to which this system may be coupled.

Thus, notwithstanding the mention of “a networked system” in paragraph 0017, neither Fig. 1 of Goronzy et al. or its associated description explicitly teach a “network” as claimed. To the contrary, at least paragraph 0019 implies that Fig. 1 excludes such a network. Further, a device with connected circuit components as illustrated in Fig. 1 of Goronzy et al. cannot reasonably be said to include “a network” as claimed. Because Fig. 1 of Goronzy et al. fails to teach, either explicitly or implicitly, a network as claimed, the rejection of claims 1, 18, and 28 is improper.

Even if Fig. 1 of Goronzy et al. did include a network, it does not teach a network “over which output data including identification information is provided to one or more speech-recognition systems” as claimed. Goronzy et al., at col. 3, lines 45 and 46 in paragraph 0020, discloses that “In the verification module 4, an automatic identification of the speaker is performed.” Goronzy et al. also discloses in the next paragraph 0021 that verification module 4 selects among different model sets 7-10 “via a switch 11.” Thus, verification module 4 provides identification information only to switch 11, and not to a speech-recognition system (e.g., recognition module 5) as set forth in claims 1, 18, and 28. Switch 11 does not reasonably correspond to the claimed network; nor does switch 11 provide any input identification information to recognition module 5. Thus, Goronzy et al. fails to teach a network “over which output data including identification information is provided to one or more speech-recognition systems” as claimed, and the rejection of claims 1, 18, and 28 is improper for this additional reason.

b. Goronzy does not teach “determining an identity of a speaker through a network.”

Goronzy et al. at col. 3, lines 45 and 46 discloses that “In the verification module 4, an automatic identification of the speaker is performed.” Thus, Goronzy et al. explicitly teaches

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that identification of a speaker is performed solely by and within verification module 4. This teaching of identification by verification module 4 plainly does not meet the additional claimed limitation of determining an identity of a speaker "through a network." Verification module 4 does not correspond to a network. Nor does the signal traveling from microphone 1 to A/D converter 2 to feature extraction module 3 to verification module 4 reasonably correspond to "determining an identity . . . through a network" as claimed. The rejection of claims 1, 18, and 28 is improper for this additional reason.

For at least these reasons, Goronzy et al. fails to disclose all elements of independent claims 1, 18, and 28, either explicitly or implicitly. The § 102(b) rejection of these claims remains improper and should be reversed.

Dependent claims 2-12, 14, and 18-30 are allowable at least by virtue of their respective dependence from claims 1, 18, and 28.

2. Claims 15-17:

Appellant respectfully traverses the § 102(b) rejection of independent claim 15 over Goronzy et al. Claim 15 requires a method including, *inter alia*, "accessing by a speaker a network containing a speech recognition system." Goronzy et al. fails to disclose at least the above quoted element of independent claim 15.

As explained above with regard to claims 1, 18, and 28, Figs. 1 and 2 of Goronzy et al. do not disclose a network -- just a device or portion of a system.

Even if Goronzy et al. taught a network, the only thing that Goronzy et al. teaches a speaker "accessing" is microphone 1 (see col. 3, lines 39 and 40). Such microphone 1 cannot be reasonably considered to be a network or part of a network; it is merely an input device coupled to verification module 4. At most, Goronzy et al. teaches a speaker directly accessing a portion (i.e., microphone 1) of a speech recognition system.

Claim 15 requires, however, "accessing . . . a network containing a speech recognition system," and not directly accessing the speech recognition system itself. Thus, Goronzy et al. fails to disclose accessing a network by a speaker, as required by claim 15. The rejection of claim 15 is thus improper.

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Dependent claims 16 and 17 are allowable at least by virtue of their dependence from claim 15.

B. Claim 13 is patentable under 35 U.S.C. § 103(a) over Goronzy et al. in view of Ellis et al.

In addition to the reasons given above in section VII(A)(1), claim 13 is allowable for the following reasons.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See M.P.E.P. § 2143.

Regarding dependent claim 13, the addition of Ellis et al., even if proper, fails to cure the deficiencies of Goronzy et al. explained above. Ellis et al. also fails to teach or suggest the above-quoted element of the method recited in independent claim 1. The Final Office Action does not allege that Ellis et al. teaches or suggests the claim element at issue. Hence, a *prima facie* case of obviousness has not been established for dependent claim 13, because the combination of references fails to teach or suggest all elements of this dependent claim.

A *prima facie* case of obviousness also has not been established for claim 13, at least because no motivation has been provided to combine Goronzy et al. and Ellis et al. The proposed justification on page 5 of the Final Office Action, "providing a recognition system that is able to recognize data in noisy backgrounds," is conclusory and devoid of citation to either reference. Such a bare conclusion does not establish a *prima facie* case of obviousness without some evidence supporting that conclusion. No reasoning, in the references or otherwise, has been provided detailing what deficiency or need in the system of Goronzy et al. would have motivated one of ordinary skill in the art to add the teachings of Ellis et al. In the absence of such evidence, a *prima facie* case of obviousness has not been established for claim 13.

A *prima facie* case of obviousness also has not been established, because at least Goronzy et al. teaches away from the proposed combination. See M.P.E.P. § 2145(X)(D)

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("proposed modification cannot render the prior art unsatisfactory for its intended purpose or change the principle of operation of a reference"). As is apparent from the discussion of Goronzy et al. above, the reference teaches a scheme for locally detecting and identifying different speakers. This is all performed by a wired microphone 1, for which there is no indication that noise is a problem. To add Aurora feature extraction would change the principle of operation (e.g., multiple user identification and use) of Goronzy et al. This being the case, at least Goronzy et al. teaches away, by its principles and goals, from the proposed combination. A *prima facie* case of obviousness has not been established for claim 13 on this additional ground.

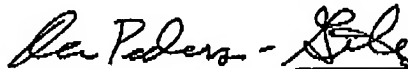
CONCLUSION

For the reasons set forth above, Appellant respectfully solicits the Honorable Board to reverse the Examiner's rejection of claims 1-30.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0221 and please credit any excess fees to such deposit account.

Respectfully submitted,

Dated: January 20, 2005



Alan Pedersen-Giles
Registration No. 39,996

c/o Intel Americas
LF3
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Chantilly, VA 20151
(703) 633-1061

VIII. CLAIMS APPENDIX

1. (previously presented) A method, comprising:
determining an identity of a speaker through a network over which output data including identification information is provided to one or more speech-recognition systems;
attempting to locate, based on the identity of the speaker, a voice model for the speaker;
and
retrieving from a storage area the voice model for the speaker if the voice model for the speaker is located.
2. (original) The method of claim 1, wherein the voice model comprises a speaker-dependent voice model.
3. (previously presented) The method of claim 2, wherein determining the identity of the speaker over the network comprises using identification information received from the speaker over the network to determine the identity the speaker.
4. (original) The method of claim 2, wherein determining the identity of the speaker over the network comprises:
receiving from a device in the network identifying data regarding the speaker; and
determining the identity of the speaker based on the identifying data regarding the speaker.
5. (original) The method of claim 2, wherein the storage area comprises an internal storage area containing speaker-dependent voice models for multiple persons.
6. (original) The method of claim 2, wherein the storage area comprises an external storage area accessible over the network.
7. (original) The method of claim 2, wherein the output data comprise phonemes.

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8. (original) The method of claim 7, further comprising:
receiving an utterance from the speaker;
using the voice model to extract phonemes from the utterance; and
transmitting the phonemes over the network to the speech-recognition system.
9. (original) The method of claim 8, wherein the utterance comprises one or both of
vocalized words and vocalized sounds.
10. (original) The method of claim 9, further comprising:
receiving from the speech-recognition system contents of a recognized utterance of the
speaker; and
revising the voice model for the speaker based on the contents of the recognized
utterance.
11. (original) The method of claim 2, wherein the output data comprise a voice
model for the speaker.
12. (original) The method of claim 11, further comprising transmitting the voice
model over the network to the speech-recognition system.
13. (original) The method of claim 2, further comprising
receiving Aurora features extracted from an utterance of the speaker;
extracting phonemes from the Aurora features; and
transmitting the phonemes over the network to a speech recognition system.
14. (original) The method of claim 2, further comprising:
retrieving a speaker-independent voice model if failing to locate the voice model for the
speaker;
receiving an utterance from the speaker;

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Application No. 10/038,409*

using the speaker-independent voice model to extract phonemes from the utterance;
transmitting the phonemes over the network to a speech-recognition system;

receiving from the speech-recognition system contents of a recognized utterance of the
speaker; and

generating a voice model for the speaker based on the contents of the recognized
utterance.

15. (original) A method, comprising:

accessing by a speaker a network containing a speech recognition system;
identifying by a first device the speaker based on information provided by the speaker;
requesting by the first device a speaker-dependent voice model for the speaker from a
voice model database server providing phonemes to any speech recognition system in the
network;

retrieving by the voice model database server the speaker-dependent voice model from a
storage area if the voice model database server locates a speaker-dependent voice model for the
speaker;

connecting by the first device the speaking device with the voice model database server;
prompting by the voice model database server the speaker to provide an utterance;
speaking by the speaker the utterance into the speaking device;
receiving by the voice model database server the utterance;
using by the voice model database server the speaker-dependent voice model to extract
phonemes from the utterance;

transmitting by the voice model database server the phonemes over the network to a
speech-recognition system; and

using by the speech-recognition system the phonemes to determine a content of the
utterance.

16. (original) The method of claim 15, wherein the storage area comprises a storage area within the voice model database server containing speaker-dependent voice models for multiple persons.

17. (original) The method of claim 15, wherein the storage area comprises a storage area accessible by the voice model database server over the network.

18. (previously presented) An article of manufacture comprising:
a machine-accessible medium including thereon sequences of instructions that, when executed, cause one or more machines to:
determine an identity of a speaker through a network over which output data is provided to one or more speech-recognition systems;
attempt to locate, based on the identity of the speaker, a voice model for the speaker; and
retrieve from a storage area the voice model for the speaker if the voice model for the speaker is located.

19. (original) The article of manufacture of claim 18, wherein the sequences of instructions that, when executed, cause the one or more machines to attempt to locate, based on the identity of the speaker, the voice model for the speaker, comprise sequences of instructions that, when executed, cause the one or more machines to attempt to locate, based on the identity of the speaker, a speaker-dependent voice model for the speaker.

20. (original) The article of manufacture of claim 19, wherein the sequences of instructions that, when executed, cause the one or more machines to retrieve from the storage area the voice model for the speaker if the voice model for the speaker is located comprise sequences of instructions that, when executed, cause the one or more machines to retrieve from an internal storage area containing speaker-dependent voice models for multiple persons the voice model for the speaker if the voice model for the speaker is located.

21. (original) The article of manufacture of claim 19, wherein the sequences of instructions that, when executed, cause the one or more machines to retrieve from the storage area the voice model for the speaker if the voice model for the speaker is located comprise sequences of instructions that, when executed, cause the one or more machines to retrieve from an external storage area accessible over the network the voice model for the speaker.

22. (original) The article of manufacture of claim 19, wherein the sequences of instructions that, when executed, cause the one or more machines to determine the identity of the speaker through the network over which the output data, regarding the person with access to the speech-recognition system receiving the output data, is provided to the one or more speech-recognition systems comprise sequences of instructions that, when executed, cause the one or more machines to determine the identity of the speaker through the network over which phonemes to the one or more speech-recognition systems is provided regarding the person with access to the speech-recognition system receiving phonemes.

23. (original) The article of manufacture of claim 22, wherein the machine-accessible medium further comprises sequences of instructions that, when executed, cause the one or more machines to:

- receive an utterance from the speaker;
- use the voice model to extract phonemes from the utterance; and
- transmit the phonemes over the network to a speech-recognition system.

24. (original) The article of manufacture of claim 23, wherein the machine-accessible medium further comprises sequences of instructions that, when executed, cause the one or more machines to:

- receive from a speech-recognition system contents of a recognized utterance of the speaker; and
- revise the voice model for the speaker based on the contents of the recognized utterance.

25. (original) The article of manufacture of claim 19, wherein the sequences of instructions that, when executed, cause the one or more machines to determine the identity of the

speaker through the network over which the output data, regarding the person with access to the speech-recognition system receiving the output data, is provided to the one or more speech-recognition systems comprise sequences of instructions that, when executed, cause the one or more machines to determine the identity of the speaker through the network over which the voice model regarding the person to the one or more speech-recognition systems is provided regarding the person with access to the speech-recognition system receiving the voice model regarding the person.

26. (previously presented) The article of manufacture of claim 19, wherein the machine-accessible medium further comprises sequences of instructions that, when executed, cause the one or more machines to transmit the voice model over the network to a speech-recognition system.

27. (original) The article of manufacture of claim 26, wherein the machine-accessible medium further comprises sequences of instructions that, when executed, cause the one or more machines to:

- retrieve a speaker-independent voice model if failing to locate the voice model for the speaker;
- receive an utterance from the speaker;
- use the speaker-independent voice model to extract phonemes from the utterance;
- transmit the phonemes over the network to a speech-recognition system;
- receive from the speech-recognition system contents of a recognized utterance of the speaker; and
- generate a voice model for the speaker based on the contents of the recognized utterance.

28. (previously presented) An apparatus, comprising:
an identification determiner to determine an identification of a speaker through a network over which output data including identification information is provided to one or more speech-recognition systems;

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a voice-model locator to locate a speaker-dependent voice model for the speaker based on the identity of the speaker; and

a voice-model retriever to retrieve the speaker-dependent voice model for the speaker from a storage area based on the identity of the speaker.

29. (original) The apparatus of claim 28, further comprising:
an utterance receiver to receive an utterance from the speaker;
a phoneme extractor to extract phonemes from the utterance using the speaker-dependent voice model; and
a phoneme transmitter to transmit the phonemes over the network to a speech-recognition system.

30. (previously presented) The apparatus of claim 28, further comprising:
a recognized-utterance receiver to receive from a speech-recognition system contents of a recognized utterance of the speaker; and
a voice model reviser to revise the speaker-dependent voice model of the speaker based on the contents of the recognized utterance.

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IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.